

Covert network data: a typology of effects, processes, practices and structures

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Covert network project

- 3 year project
- Aim to collect covert network data (freely available, in-house)
- Collate and test theories
- Develop new metrics and theories
- Thus far:
 - 200 hypotheses
 - 50 datasets (freely available)

Application of SNA to secret networks

- Secret communities amenable to study through relational methods
 - Data on communications, attendance at events, pre-existing ties often available
- Focused primarily on criminal and terrorist networks
 - Concepts such as 'resilience', 'disruption', 'capacity'
 - Methodological work on boundary definition & missing data

Covert populations

Heroin users

Clubbers

Men who have sex with men

Swingers

Terrorists

Clients of sex workers

Youth gangs

Illegal immigrants

Corrupt policemen

Criminals

Persecuted Jews

Online fraudsters

Drug dealers

Child pornographers

People with infectious diseases

Suffragettes

Militants

Ravers

Freemasons

Cyclists

Armed robbers

Child sex offenders

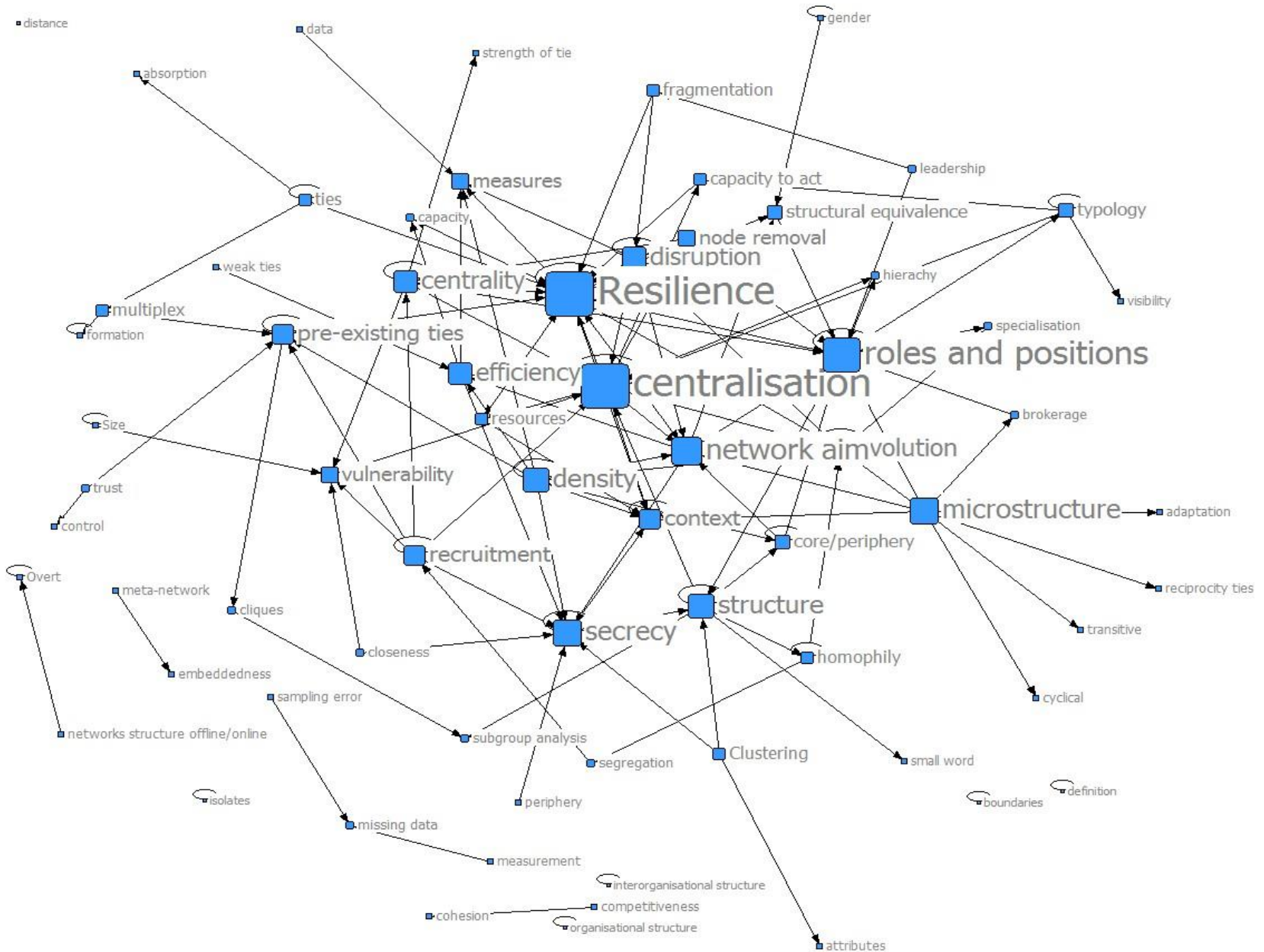
Types of covert tie or ties in covert networks

Knowing them	Sharing resources with (drugs, money, child porn etc)	Sharing needles or sex partners
Being related	Committed fraud against	Reporting to/managing
Exchanging money	Planning events with	Friends with
Being in the same gang	Being in the same place at the same time	Sexual contact
Selling/buying sex or drugs	Communicating with	Works with
Talking to	Living near	Migrated with
Being arrested with		Same genetic BBV
Being abused by		Grassed on

What do we know about covert networks?

- Multiplicity of theories
 - But little consensus
 - Examples: density, centralisation

Theories



Covert networks are sparse

	Yes!	No!
Are sparse	Krebs (2002) Demiroz & Kapucu (2012) Milward and Raab (2006) Natarajan (2006) Natarajan (2000) Gimenez-Salinas (2011)	Baker and Faulkner 1993 Koschade 2002
Get denser over time	Helfstein and Wright (2011)	
Are denser where there are pre-existing ties	Raab and Milward 2003 Krebs 2002	
Are denser where there are shared aims and values	Milward and Raab (2006) Provan and Milward (1995)	
Are denser for criminals than terrorists		Morselli (2007)
Are denser where risk is greater		Enders and Su (2007)

Red indicates empirically tested

Frame of reference?

Compared with overt networks?

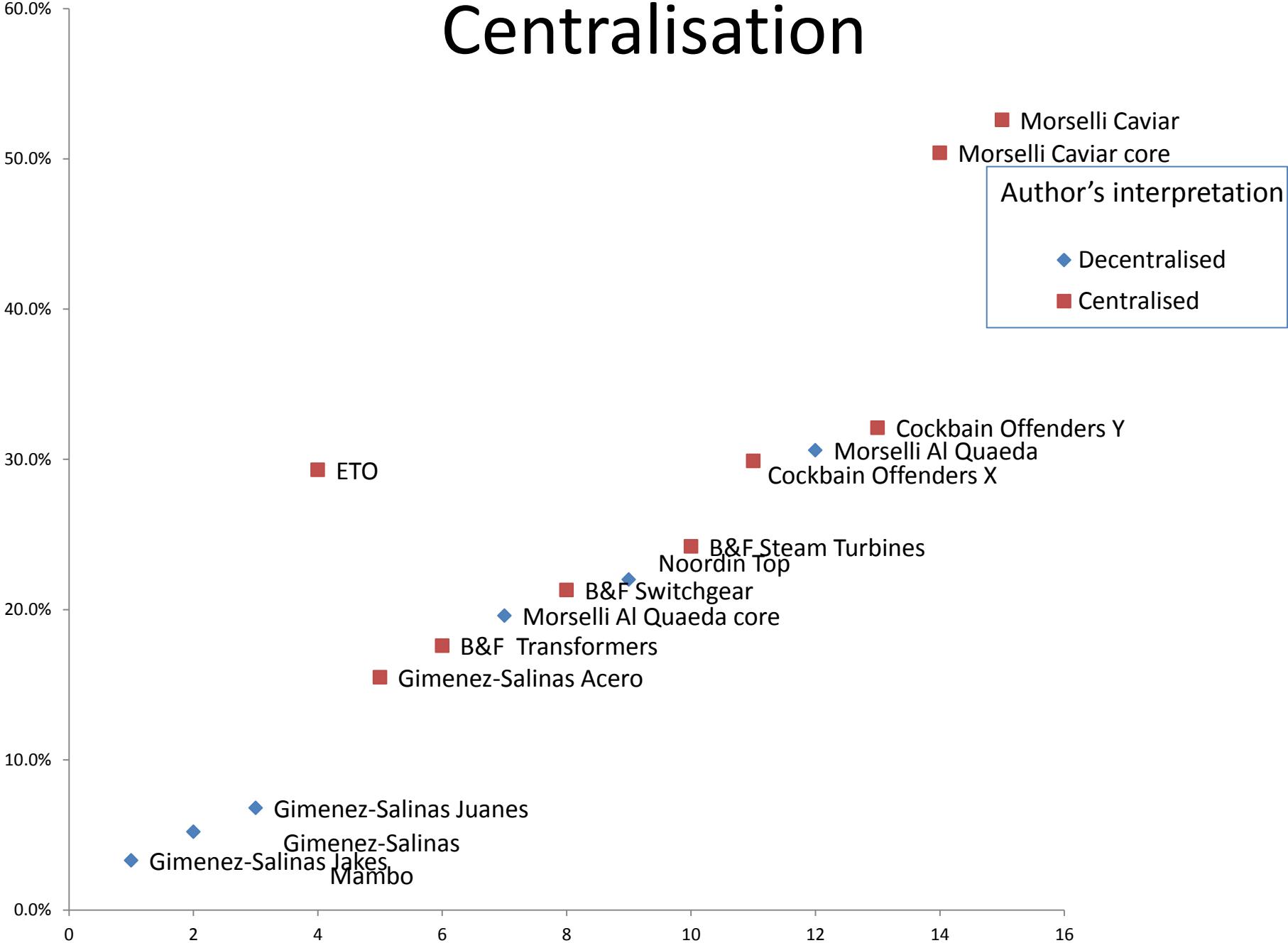
Density



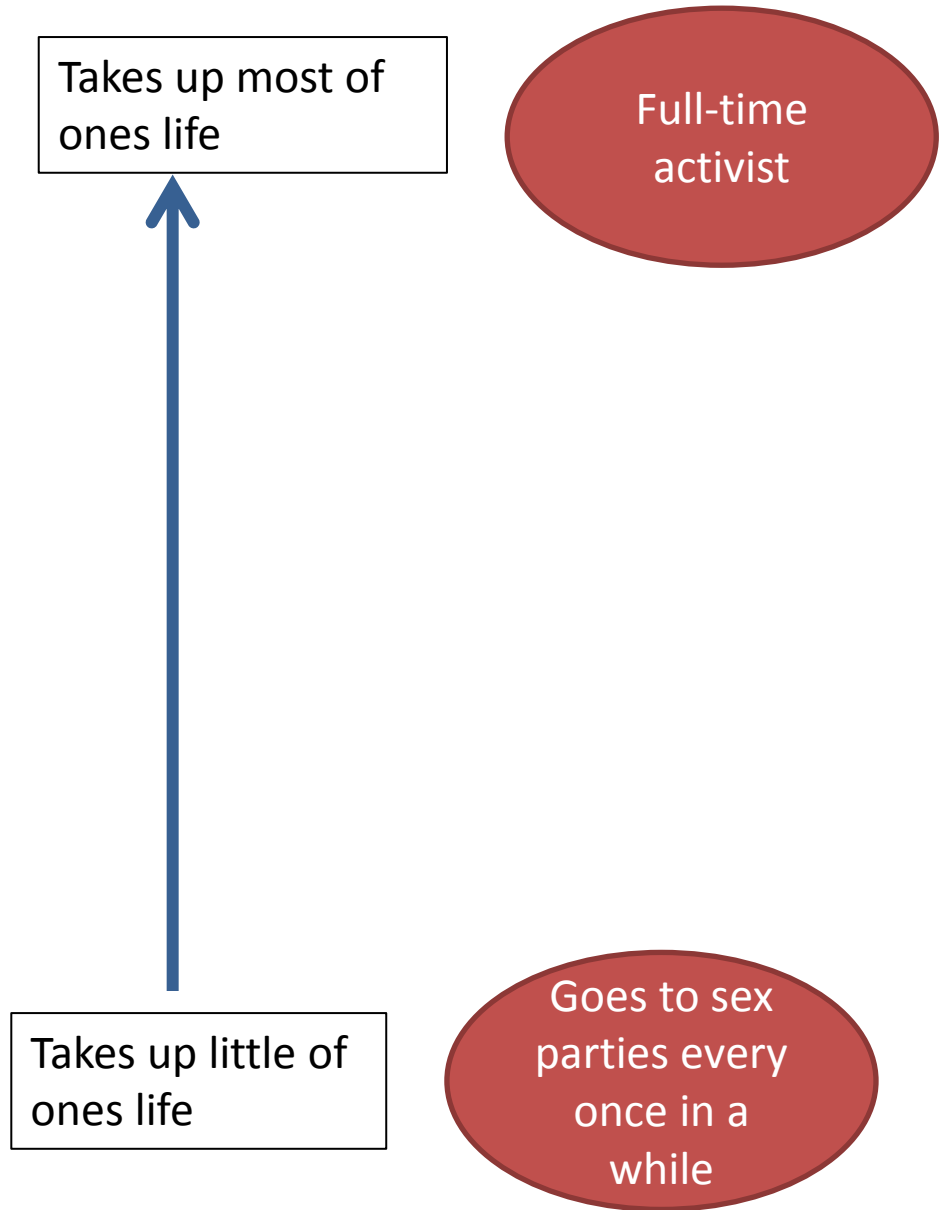
Centralisation

	Yes	No
covert networks are centralised	<p>Demiroz and Kapucu (2012) Baker and Faulkner (1993) Varese (2012) Crenshaw (2010) Stanford Gimenez-Salinas (2011) Cockbain (2011)</p>	<p>Carley, Lee, Krackhardt (2002) Crenshaw (2010) Stanford Bouchard (2007) Gimenez-Salinas (2011)</p>
Become more decentralised over time	<p>Milward and Raab (2006) Helfstein and Wright (2011) Raab and Milward (2003)</p>	
Become more centralised as risk decreases	<p>Demiroz and Kapucu (2012)</p>	

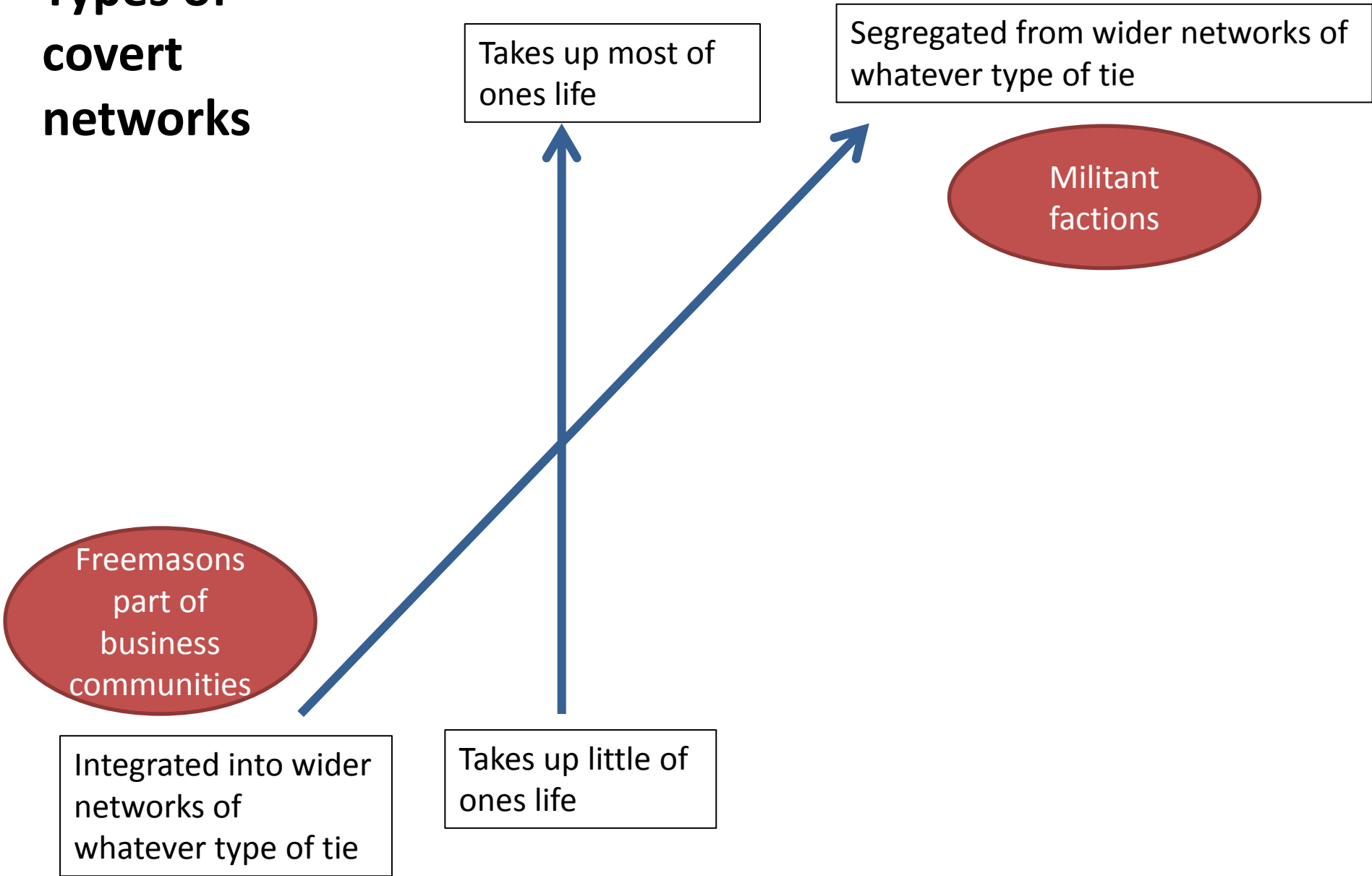
Centralisation



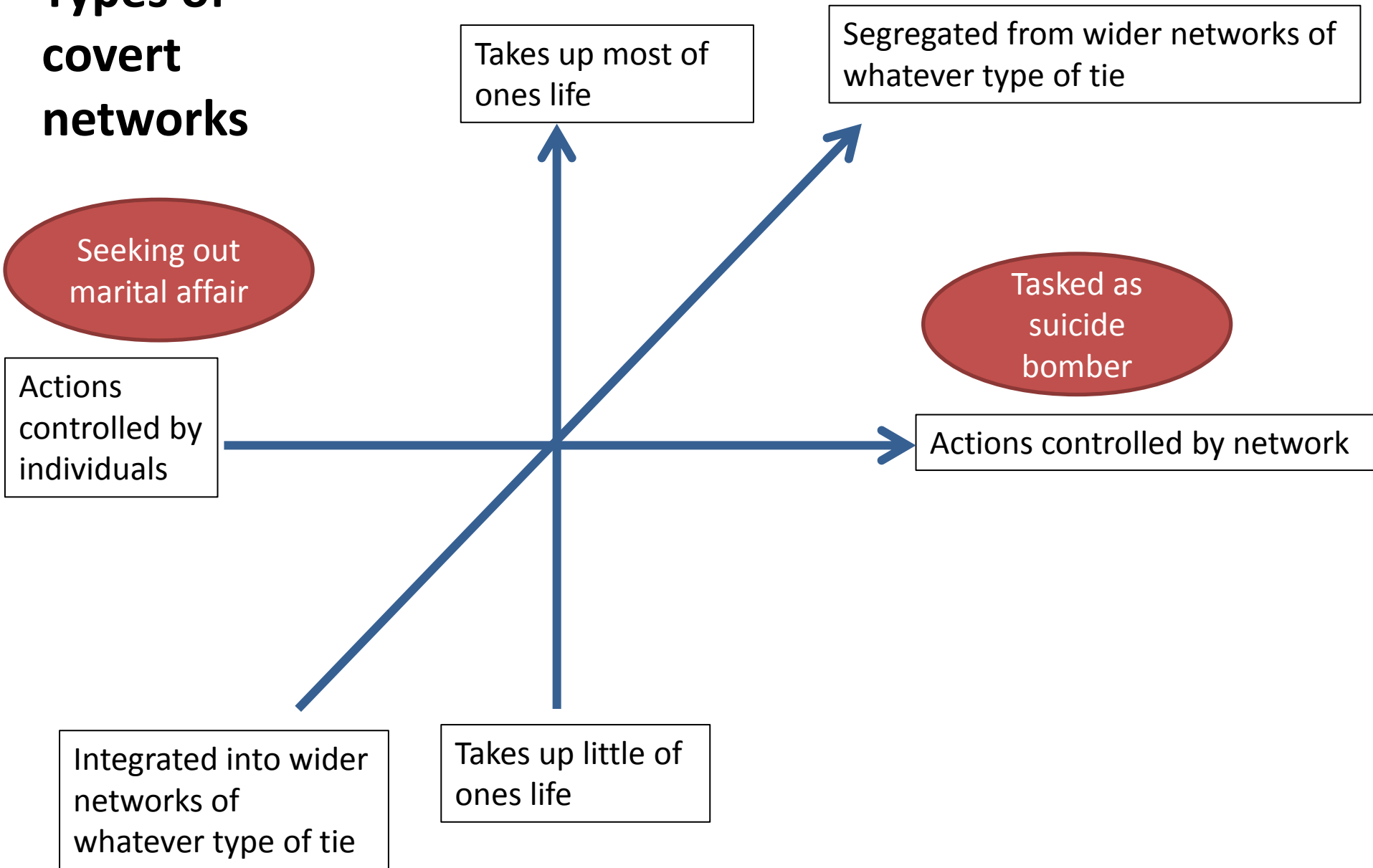
Types of covert networks



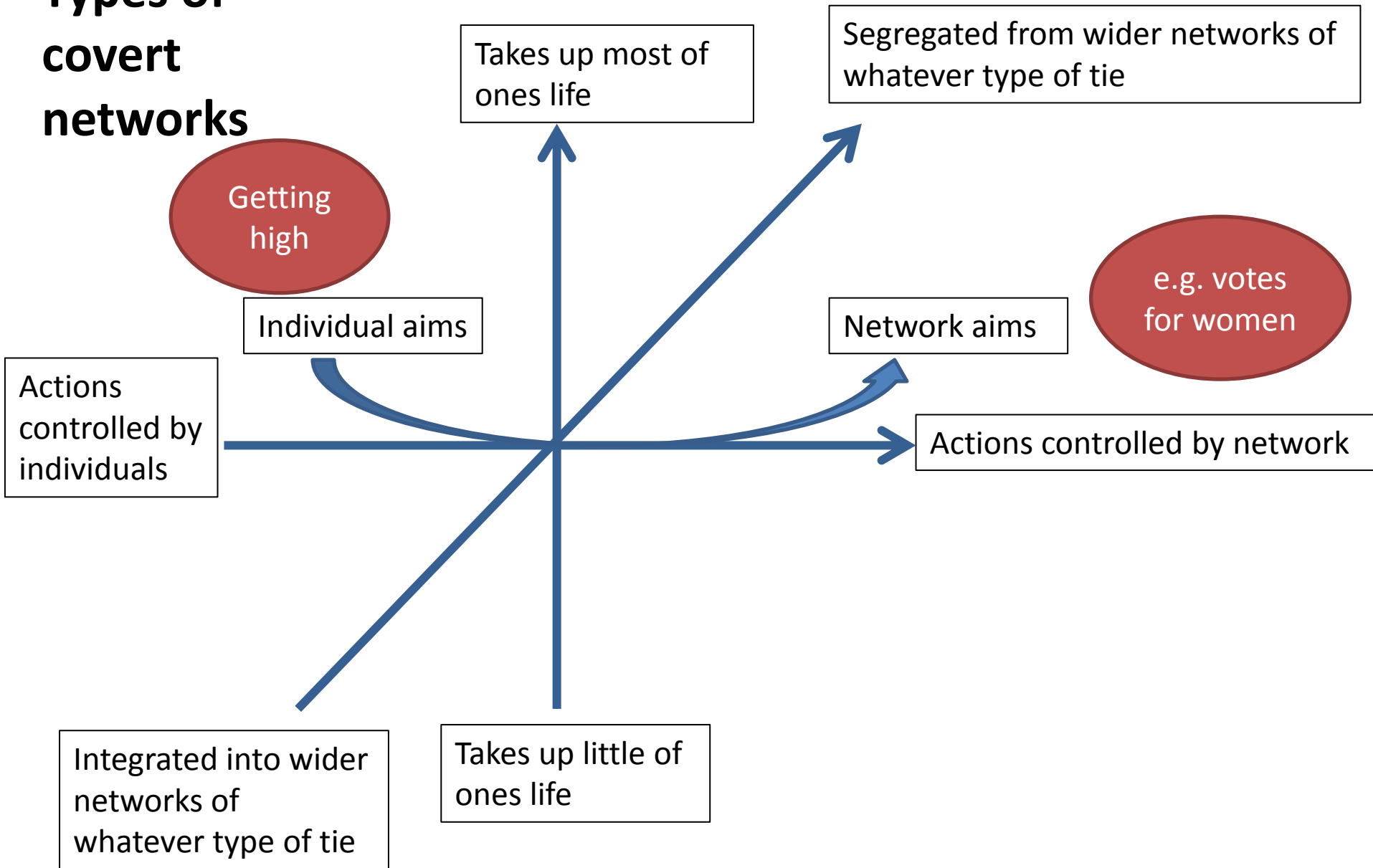
Types of covert networks



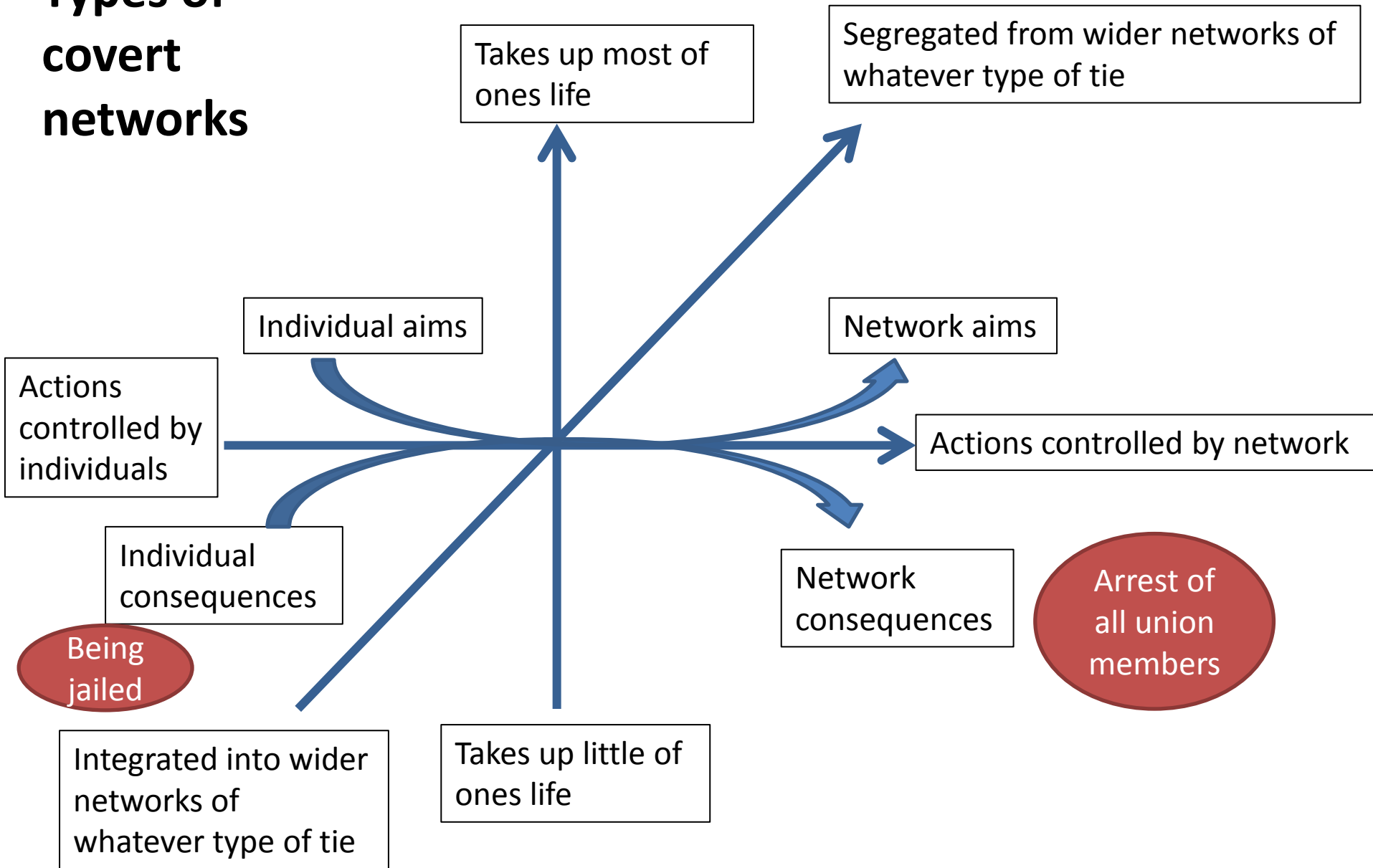
Types of covert networks



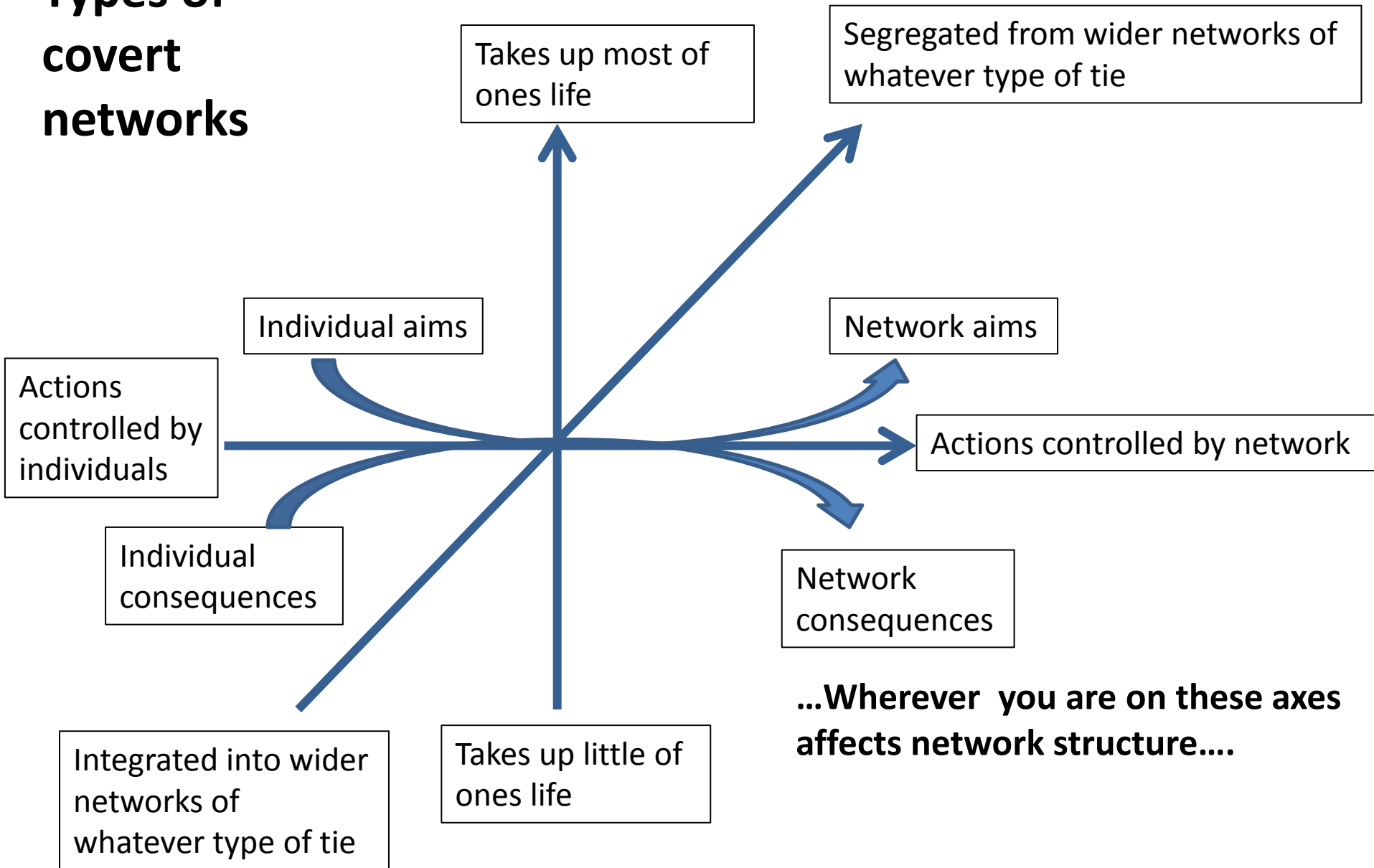
Types of covert networks



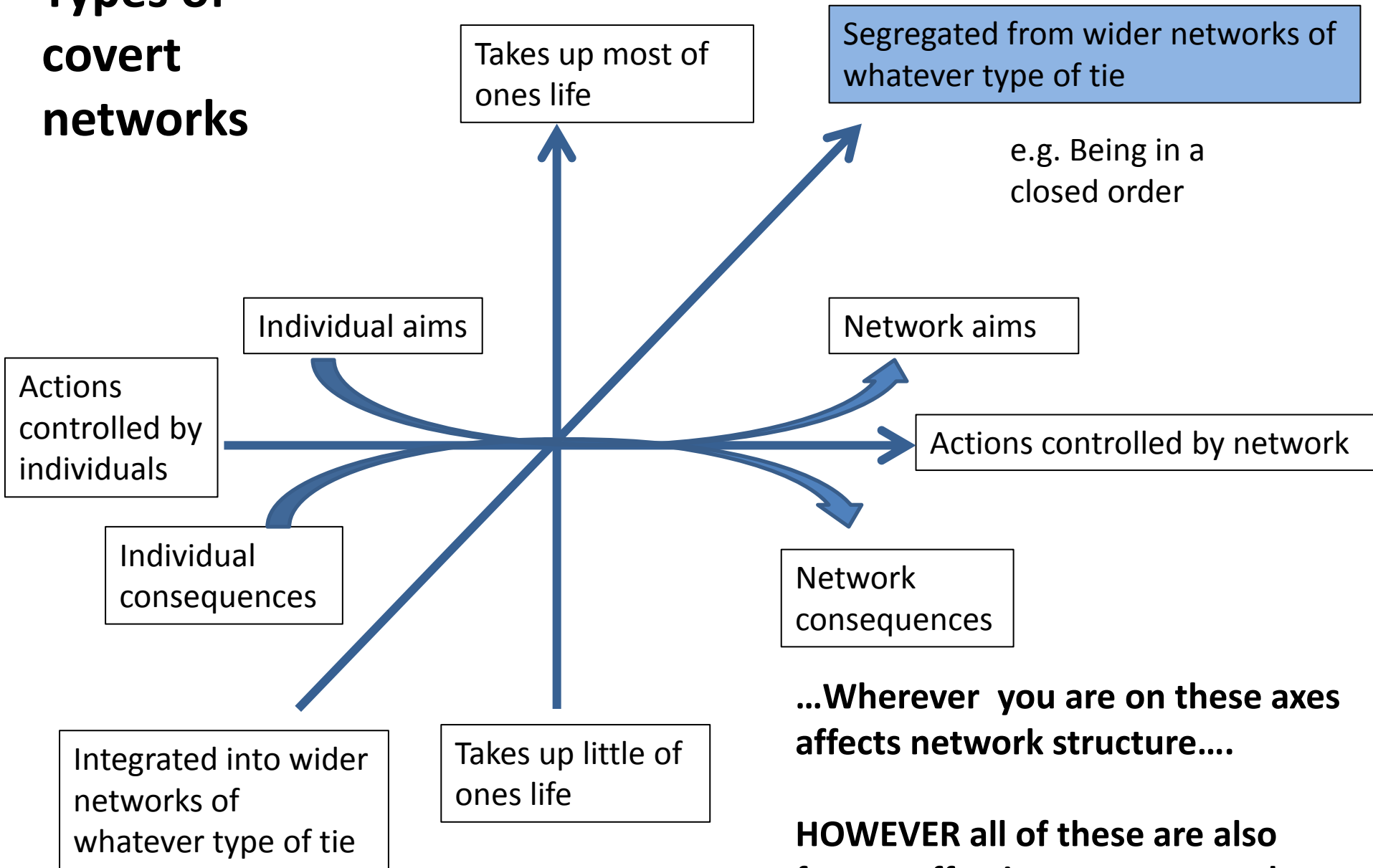
Types of covert networks



Types of covert networks



Types of covert networks



...Wherever you are on these axes affects network structure....

HOWEVER all of these are also factors affecting overt networks

**Therefore *secrecy* is the key characteristic of
these networks**

Where might secrecy happen?

- Covert aims (political, ideological, illegal)
- Covert identities (mafia boss, spies)
- Types of actions within covert network (e.g. communication)
- etc

Aim: to develop set of covertness variables and use to build hypotheses

e.g. predicting centralisation

Network	Absorption	Aims (1 = individual, 5 = group)	Actions (1 = individual, 5 = group)	Consequences (1 = individual, 5 = group)	Segregation	Centrality
1 (e.g. hijackers)	100%	5	1	1	80%	Highly centralised
2 (swingers)	5%	1	4	2	10%	Low

And can compare with....

3 (monks)	100%	5	1	1	80%	High
4 clubbers	5%	1	4	2	10%	Low

Covert networks project@ Mitchell Centre

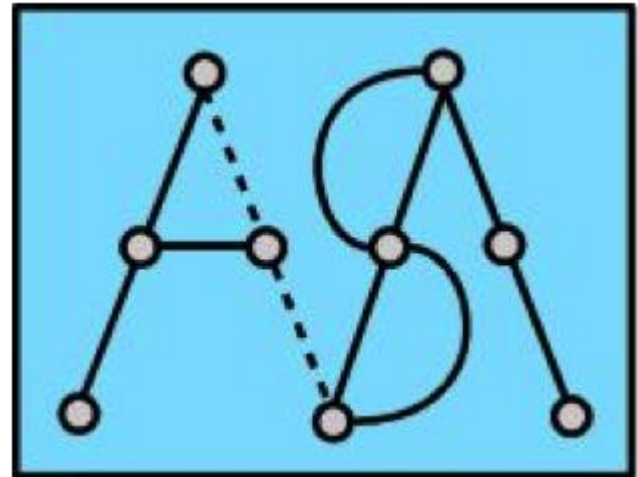
- We aim to:
 - Collect covert network data and make freely available where possible
 - Compare and test theories
 - Develop concept of covertness as variable/set of variables?
- Recruitment, segregation, formation, dissolution as qualitative case studies
- Contact me: kathryn.oliver@manchester.ac.uk

Thanks



The Leverhulme Trust

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